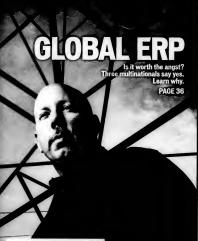


Here's the scoop on software tools that can help you juggle Macs and PCs.

# COMPUTERWORLD



For Colorcon CID PERRY COZZONE, the payoff was worth the effort.

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OCTOBER 15, 2007

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Privacy concerns among employees and lawmakers continue to dog IT efforts to expand use of RFID technology, PARE 26

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#### Change without changing it all.

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Corporate efforts to use RFID continue to stir up concerns about privacy and prompt state legislators. to propose laws restricting its use.

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COVER: PHOTO BY BILL CRAMER

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Don't be afraid of a little typing. Lots of good old DOS commands still work in Windows, and often they're the best choice for quick and efficient work. computerworks.com/software

10 Things
That Should
Be in Apple's
Next Mac Pro
Amid reports that Apple



may be hoarding intel Penryn chips to use in its next Mac Pro, Seth Weintraub offers a wish list of technologies he'd like to see in Apple's professional desktop line, computerworld.com/mac

#### Mac E-mail Showdown: Which Program Delivers?

Our reviewer weighs the pros and cons of Mail, Entourage and Thunderbird to see which one gets his thumbs-up.



#### Windows XP SP3 to Include Some Vista Features

One of the Vista features that will appear in the next XP update is Network Access Protection, which is policy-enforcement technology that inspects client PCs before they access a corporate network. The machines are then blocked if needed. computer world.com/software

#### Amazon Offers Uptime Guarantees for Online Storage

Amazon.com has unveiled a new service-level agreement that guarantees that its S3 online storage service will be available for 99.9% of requests. computerworld.com/storage

### Blog Watch

#### Electronic Arts Sells Its Soul

When someone buys a game, he expects entertainment. In SimCity Societies, what he'll get is an energy company pushing a thinly veiled agenda. Blogger Preston Gralla decries this union. computerworld.com/blogs/node/6346

### Not-So-Green Computing Previous studies have shown that home PC energy co

Previous studies have shown that home PC energy consumption has skyrocketed. Robert Mitchell suggests that the fault may not just be with the hardware. Could an entire operating system such as Windows be an energy hog? computerworld.com/blogs/node/6283

### SHARK BAIT

#### Bosses Come First

When the help desk has a dozen computers to set up in short order, the boss goes out of his way to ensure his computer is first. Little does he know the consequences of his deceit . . .

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#### EDITOR'S NOTE

### Don Tennant

### **Under the Covers**

HERE WAS an intriguing article posted on our Web site last week about unusual locations for data centers, including buildings that formerly were places of worship. Titled "Data Centers Get Religion," the story by Barbara Darrow cited the example of St. Clement's chapel at Boston College, which prior to last year had been empty but now houses the university's data center. The story created a bit of a stir.

We found it necessary to remove the first two reader comments in response to the story, a move that drew this entry from the anonymous author of the first comment (edited here for clarity; the actual posting is viewable on the site): "Barbara, I am ashamed

ostroat, I am Sanameo to say that you deletied my post. That is not nice. Since when is discriminating against religious posts right? I will see that Computerworld is off my reading list. All I said was it was sad that a university started by Christians was being secularized. Turning a chapel into a computer center is NOT a good thing, it's very said, Where is your faith? God has not changed, people have."

If that's all the reader said, why did we remove his comment? Well, the truth is, that's not all he said. This is what he actually wrote in his posting:

"Too bad the church could not be restored for its original use — to worship God and Jesus Christ, the Son of God. Only goes to Ishow! What's happening to our faith-based uniwersities and colleges started by Christians. Where is 
your faith, young people?
God has not changed, but 
you have. I pray for you 
that you might have a 
personal relationship with 
lesus Christi's.

The other comment we removed was a response from another anonymous reader to that posting: "If you believe human

at you better minds actions are predetermined by God, then you should accept that He provided the wisdom to create computers, and now provides BC the place to house servers. He alone understands the dangers of overheating, saving us all from server hell." It's important to note

■ Now you've seen under the covers and you know exactly what we removed. Did we make the right call? that the authors of our stories don't have the authority to remove reader comments; only certain editors are given that responsibility. In this case, as she noted in a posting in response to the first reader, blogs and projects editor Joyce Carpenter removed the two comments "because they were off-topic. They

nection to the article."
Being off-topic is one of several grounds for removal, according to the comments policy posted on our site. Others include making potentially libelous statements, using obscene or racist language, engaging in personal attacks, publishing private information without consent, plagiarizing, and engaging in commercial promotion.

did not have a clear con-

So now you've seen under the covers and you know exactly what we removed. Did we make the right call? I'm raising the ques-

I'm raising the question in this case because I don't ordinarily have that



luxury. In the event of a personal attack or an obscene or racist comment, for example, I'd obviously be unable to show you exactly what we removed. It's a particularly inter-

esting case, because it involves an especially emotional issue; religion. The first reader went off topic when he engaged in proselytizing. It's one thing to express the view that former places of worship should not be converted into data centers, but it's quite another for someone to use the forum to suggest that others should adopt his religious conviction. The second reader was off-topic because he used the forum to mock that

I'm comfortable that those were indeed sufficient grounds to remove the comments, based on generally accepted guidelines for monitoring the acceptability of reader-generated content in this type of online discussion forum. No one is arguing that the readers don't have the right to express those views. The question is whether allowing them to be expressed in this forum serves the interests of our readership.

My feeling is it does not. But I'm eager to hear what you have to say, and I'll revisit the question to share your feedback. Did we get this one right? 

Don Tomant is editor in chief

of Computerworld. Contact him at don\_tennant@ computerworld.com.

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■ LETTERS

#### **UML Shifts Specs to** User's Point of View

In his Sept. 24 column, "Five Diagrams Beat a Victorian Novel." Michael Hugos makes a compelling case for representing system specifications in some fashion other than simple text, which he claims simply "mire[s] readers in a swamp of boring words."

However, it does seem ironic that he says he is a proponent of schematics and diagrams, yet he derides UML as "a variation on [the] Victorian novel."

Anyone familiar with UML will see that Hugos is criticizing a small part of the UML standard. His "novel" is the increasingly popular Use Case method for defining system requirements. Requirements become a contract between the project sponsor and the development team, so boring or not, some text document is going to have to be written down for all stakeholders to

What the Use Case method does is shift the focus from IT to the system user's point of view - something we often overlooked. As a former UML instructor, I see no problem with Hugos' practice of using process-flow and data-flow diagrams for functional specifications if that is what his business analysts understand. But I cringe when someone criticizes UMI. because they don't understand it. Those of us who have had to learn a new modeling notation every few years are glad to see a standard evolve.

It takes time to get comfortable with new shoes - just don't criticize the shoemaker for causing you to stumble around the first few times you wear them! ■ Bob Jones, graduate student. Widener University, Chester, Pa., rgjones@mail.widener.edu

Editor's note: Michael Hugos provides sample diagrams in the online version of his column. Go to Computerworld.com's Management Knowl edge Center to see them.

#### We're Quite Ready for Linux on Desktop

I am neither a Linux vendor nor a programmer. I am, however, a Linux end user. As such, I can attest to the error in some of Michael Gartenberg's comments ["Linux Still Doesn't Make It on Desktop," Opinion, Oct. 11.

Most notable is with regard to office suites for the Linux platform. They exist, they function as well as their Microsoft counterparts, they are less expensive (if not free), and they all are capable of generating Microsoft Officecompatible files.

Additionally, as was stated in a recent article in PC World. Microsoft's own Office 2007 is only "nearly" backward-compatible with previous versions of the product.

What prevents Linux from widespread desktop adoption are rumors and myths, such as those presented in this opinion piece. If operating system installations were done in business environments by users rather than IT staff, it could be argued that the complexity might prevent acceptance. But such is not the case.

Linux, no matter how useful or viable, must still compete with an entrenched Windows operating system. Only time will tell whether it can overcome the odds

William Butler, technology department staff. Gilmer Independent School District, Gilmer, Texas

I've had Linux on my desktop for three years, and I want for nothing. There is no such thing as a standard desktop, and there are lots of users who don't need 100% compatibility with Microsoft Office, ITunes installs under Wine very easily in most cases

Linux may not be there yet (wherever "there" is), but many would argue that Windows isn't either --as soon as Microsoft feels it's not threatened, it stops innovating, S. Holland, systems analyst, Yayasan Pendidikan Cemara Asri, Medan North Sumatra

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#### RESPONSE TO: So You Want to Be A Manager

Oct. 1, 2007

Tools are great, but buying the best hammer doesn't make you a carpenter. Paul Glen's primary point is right on: Most people have very distorted notions of what a manager is, what a manager does and what it takes to be successful.

I started managing people in 1992, and I've worked to an SVP position. Over the years I've had dozens of people tell me they want to be mangers, and the first thing I do is ask them why. A majority don't understand what they are getting into.

\*\*Buthwitted by Anonymous\*\*

#### RESPONSES TO: Women in IT Go East, Data Shows

Oct. 2, 2007

The federal government and many of its IT contractors in the D.C. metro area aggressively pursue hiring goals for diversity candidates, including women. They also offer family-friendly benefits and a workplace well protected from discrimination and harassment. The same is true of many health care-related companies based in the East.

I agree comewhat with the author's observations about the culture in Silicon Valley, but I'm not sure it's a question of inherent competitives so much as the pervasive expectation that employees — in many start-ups at least — must be willing to give up a large chunk of their nomovok sullidie in work in the IT industry there. There are a lot of alpha geeks — predominantly male — for whom "life" equals "worldies".

I guess it's a trade-off that each person, male or female, has to be willing to make for themselves. I personally wouldn't trade time with my son for extra stock options or an earlier promotion, but that's my personal decision. When I job hunt, I look for companies that value my hard work, but provide a work/life balance that its my preferences. I'm a zwy, but I

suspect more women than men may share my preferences.

B Submitted by: Sophos

Women aren't as interested in techie positions as they are in application and business functionalities. Take a look at your organization. How many women are on the server, network side vs. application and business development? Want to sit with the techno geeks and create great code. or work with customers, business groups and departments to solve real business issues and challenges? It's a pretty easy decision for me. Give me the soft side of IT and mix in a little technology, and you have applications development. The techie firms just don't provide that type of opportunity. ■ Submitted by: Philly

### RESPONSE TO: Great Career Advice I Ignored

Oct. 1, 2007

Great career advice that I didn't take:
that I had to get into management
to be successful/influential. After a
short stint as a department head with
17 direct reports. I realized that I was
MUCH happier as an individual contributor in a technology leadership
role. No "C" jobs in my future!

8 Submitted by: Anonymous

#### RESPONSES TO: iPhone Users Now Fear Security Patches, Say Analysts Oct. J. 2007

Quoting Andrew Storms, director of security operations at nCircle Network Security Inc.: "But when the update appeared, it was almost certain that some huge percentage of devices for which the patches were intended would be broken."

This is such an idiotic quote. I'd like to get an idea of exactly how many iPhones got bricked from this update. Is it 1%, 5%, 10%? The quote makes it sound like practically all iPhones were hricked, which is ohviously not the case. Personally, I think this whole issue is totally blown out of proportion by a very vocal and minuscule minority who are superupset because they now own a very expensive paperweight that they hooke themselves.

■ Submitted by: Sophos

It's your equipment. Modify it all you want, Just don't cry when you want the best of both worlds and they don't work with each other. You were warned, and if you got spanked, too bad, so sad.

Submitted by: Dads

#### N.Y. Woman Sues Apple, Jobs Over iPhone Price Cut

Oct. 1, 2007 Unlocked yours?

- diePhone
Upset about the price cut?
-- cryPhone
Wondering what all the fuss is about?

Wondering what all the fuss is about?

— whyPhone

What it will NEVER be?

— myPhone ■ Submitted by: Matt

#### RESPONSE TO: Euro Think Tank Recommends Unbundling Windows

Sept. 24, 2007

I am not a fan of either MS or Apple, but I find the continued idiocy emanating from the EU to he disturbing. This latest report is abe und.

I can't think of anyone I know who would want to buy the PC separate from the OS. The Globalisation Institute needs to leave their ivory tower and look at the ramifications of what they suggest. I believe that while personal Apple sales may increase, messes will spend more time/money configuring PCs for office use.

But shutfled by somewhere in NY.

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#### THE WEEK AHEAD

WEDNESDAY: The Web 2.0 S



#### CIO Calls for IT to Use a **More Personal Touch**

ORI ANDD

ESLIE Brennan, CIO of the New York State Department of Environmental Conservation, drew laughs at Gartner Inc.'s IT Expo here when she described how her organization improves communication with users - by meeting face to face rather than using e-mail.

Improving communication "is really talking to the business, not e-mailing the business," she told the BlackBerry-carrying audience members. "It's more

than just getting up and talking business - it's talking to each other."

Encouraging face-to-face interaction teaches IT professionals "to behave a little hit more professionally - a little more husinesslike." Brennan added

Other IT managers at the conference agreed that CIOs must get the entire IT operation to embrace

business-oriented thinking. "You are only as good as your staff," said Michael Goodwin, senior vice presi dent of IT at Hallmark Cards Inc. in Kansas City, Mo.

Goodwin said that IT staffers need to spend time with sales and operations personnel "so they can hetter understand the challenges and issues they are facing and bring back solutions and capabilities that add value."

Brennan said that after attending company management meetings, she types up her notes and distributes them to the entire staff. That information can belo

the IT staff "become more attached to the mission of the organization instead of thinking they are in the IT shop," Brennan said.

When IT developers approach Patricia Graham, CIO at CenterPoint Energy Inc. in Houston, about possible system changes, they must provide technical details and information on how the changes will affect the business

"I'd like it to be articulated in terms of what it means for the business," she said. As IT workers gain more

husiness acumen, the role of the CIO must also evolve. noted Leo Genders, CIO of the Ohio Bureau of Workers' Compensation in Columbus.

"The CIO's role is essentially still defining itself." Genders said, noting that "they are not teaching how to be a CIO in college."

The new role of the corporate CIO is in its infancy. he said, and "we have actually a chance to shape it."

- Patrick Thibodeau

Commerce Bank Thwarts a Major

### Database Hack

A Midwestern bank last week said it was able to deflect most of a hacking attempt on its database, but not before some customer information was divulged.

which operates in Missouri, Kansas, Illinois, Oklahoma and Colorado, last week said a hacker had breached a database with about 3.000



customer records and ac cessed 20 of them. The hacking was quickly detected and stopped, said the unit of Kansas City, Mo.-based Commerce Bancshares Inc notified of the breach The bank said that it is

and that it will provide then



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#### SOFTWARE

#### **SAP-Business Objects Deal Stirs User Anxiety** SAP AG's agreement last

week to buy Business Objects SA for \$6.8 billion left some of the latter company's users fearing a decline in support and a decrease in emphasis on product development.

Analysts noted that officials at SAP must address overlap between the two vendors' product lines.

force the vendor to change its development plans.

"My hope is Business Objects will not spend years and years only trying to better integrate its product suite with SAP's, but will use this acquisition to gain access to more capital to enhance what it already has " he said. He also called on SAP not to "add lavers



My hope is Business
Objects will not spend ears and years only trying to better integrate its product suite with SAP's, but will use this

acquisition to gain access to more capital to enhance what it already has. JONATHAN ROTHMAN, DIRECTOR OF DATA MANAGEMENT, EMERGENCY MEDICAL ASSOCIATES

Ionathan Rothman, director of data management at Emergency Medical Associates in Livingston, N.I., and a user of various Business Objects business intelligence tools, said he hopes that the deal won't

and layers of corporate decision-makers and make Business Objects slower to

adapt to user needs. "Otherwise, as a core Business Objects user, I would see no advantage to this acquisition," he said.

Erik Brokaw, enterprise architect at Blue Cross and Blue Shield of Kansas City. said he is more optimistic about the combination but still called on SAP "to provide the same level of support for the business intelligence solutions as Business Objects does today. Blue Cross uses multiple RI tools from Rusiness

Objects, he said. Bernard Liautaud, chairman and founder of Parishased Rusiness Objects said the company will remain an "independent business" after the deal closes. He noted that while the BI vendor wasn't looking to be acquired when it was approached by SAP in July, "we were, of course,

John Hagerty, an analyst at AMR Research Inc. in Boston, said the acquisition comes in the midst of efforts by both companies to extend performance management product lines.

willing to listen."

"It's going to require some backtracking on both fronts to make it look more

complementary," he said. - Heather Havenstein with James Niccolai of the IDG News Service

#### Short Takes

the BEA board said that it

#### Management Glitch' Is Blamed in Ohio Tape Theft

der a week of future vacation time as punishment for a "management glitch" that led to the theft of a backup tape holding Social Security num bers and other personal data on more than 100,000 state ployees and taxpayer to state issued the pr

t late last month to Jerry or, payroll team leader for edge System ERP project of the Ohio Department of Administrative Services, according to Ron Sylvester, deputy director in the ent's con

The tape was stolen in June from an intern's car. Sylvester also noted that ph the tape was his department's responsibility, it was

An Ohio state official will lose a week's leave over a tape theft. regularly handled by individual

Part of the problem is that [the data] was outside of any one person's hands. There we people coming in from agenci to do data migration and testing" who were adding data to he drive, he said.

"One lesson that the state arned is that we need to thre more resources at security and privacy when we have an issue lke that," he added.

Lauren Whitehouse, an malyst at Enterprise Strategy Broup Inc. in Millord, Mass., said the minimal punishme nelicates that there isn't a

pread security prob "If there was a pattern of incompetence," she said, "t pically the person would los

their job."

- BRIAN FONSECA



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### Robert Keefe



### Incoming SIM head says IT faces hiring woes at all levels.

MEMPHIS Robert Keefe, senior vice president and CIO at Atlanta-based Mueller Water Products Inc., will become president of the Society for Information Management at the start of next year. In an interview with Computerworld at SIM's annual conference here last week, Keefe talked about the problems IT managers face in finding aualified staffers.

Are SIM members having a difficult time finding veteran IT workers with strong busi-

ness experience? Working with the business is part of our profession; it's not just technology anymore. A lot of the onus falls on the individual [IT workers] to get the training and experience they need. They're out there. but they're hard to find. You have to pay a little bit of a premium to get them.

What specific IT jobs are hardest to fill? Business relationship managers to help with the alignment component. Those are the tougher finds. Fortunately, you only need a few of those.

Have SIM members had problems finding entry-level IT orkers with adequate com-unication abilities and other soft skills? First and foremost, there are not enough [computer science and IT majors] due to media coverage on offshoring. Personally, I look to recruit out of universities that have that

emphasis [on soft skills]. I'm a mentor in residence at a university, and they're working on bringing these soft skills into the program and integrating the business side with it.

Are signing and retention bonuses for some IT work-

ers coming back into vogue? Yes, But for Generation Y. money isn't the only thing that drives them. They're also looking for interesting challenges and an inviting [work] environment. It's tough to convey that in the interview process.

- Thomas Hoffman



of software for managin regulations. The purchase

laonched its Web-based

emerging handbeld devices

### rispatches

**Gateway Plans to Buy Packard Bell** 

WIJCHEN, THE NETHERLANDS Bateway Inc. last week agreed ire PC maker Packard Bell BV, which is based here, for an undisclosed sum.

c. to Gateway in 2004. lowey said the acc

will be funded by Taipei-based Acer Inc., which in August an-nounced plans to buy Bateway The deal is expected to o in the first quarter of 2008.

IDG News Service

Australia Launches Infrastructure Plan CANBERRA, AUSTRALIA -The Australian government last week launched a critical

frastructure prot tem that was created to s to major infrastructure

Work on the \$20 m alian (\$16.1 million U.S.) itical Infrastructure Prote in Modeling and Assess-ent (CIPMA) program was ted in 2005 by govern mearch agencies and the of-ce of Attorney General Philip

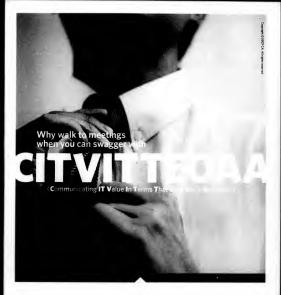
The CIPMA datab dng and fine

Scott said analysis of the sta in the system could help overnment agencies and ut as identify "where to build extra backup and where weak

Computerworld Australia

BRIEFLY WOTED oogle Inc. last week acqui software application that lets obile phone u owae short m





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### Retailers Take Swipe At PCI Security Rules



An industry group says credit card companies must stop forcing businesses to store card data.

By Jaikumar Viiavan

IMMERING discontent over the Payment Card Industry data security standard boiled over this month when the National Retail Federation publicly called on credit card companies to take more responsibility for storing card data.

In a terse letter to the PCI Security Standards Council, which oversees implementation of the standard, NRF CIO David Hogan called on credit card companies to stop making retailers "jump through hoops to create an impenetrable fortress" to protect card data. Instead, he asked the council to work with retailers "to climinate the incentive for hackers to break into their systems in the first place." The Oct. 2 letter from the NRF, whose members

the NRF, whose members include most major U.S. retailers, was sent after many of the trade association's members apparently failed to meet a Sept. 30 deadline to comply with the PCI data security standard.

The standard requires retailers to implement a set of prescribed controls for protecting cardholder data. Compliance is mandated by credit card companies Visa International Inc., Master-Card International Inc. American Express Co., Discover Financial Services LLC and the Japan Credit Bureau. About 325 Tier I mer-

chants — those that process more than 6 million credit card transactions per year — are subject to monthly fines of \$5,000 to \$25,000 for failing to comply with the standard

In an interview, Hogan argued that retailers and others accepting paymentcard transactions should not have to comply with the PCI mandate that they store certain card data for up to 18 months in case it's needed to mitigate disputes.

He suggested that credit card companies and their banks, not retailers, should be responsible for storing the data.

In that case, Hogan said, retailers would only need to store an authorization code provided at the time of a sale to validate a charge, plus a receipt with truncated credit card information to handle returns and refunds. "It is a very fundamental

shift," he said. "But if you think about it, it is a very common-sense approach."

The PCI mandates now require that retailers build unnecessary "fortresses" around credit card data, Hogan said. "We build these higher walls, and the hackers bring in taller ladders, and this kind of keeps scaling up all the time." he added.

Gartner Inc. analyst Avivah Litan said that the NRF letter makes a "sound argument." It's totally reasonable to tell the banking system and payment system that "We don't want to store this data anymore." Litan said. "If they aren't storing this data, many of these [PCI] requirements go away, and the scope of the compli-

Continued on page 24



ALTERNATIVE THINKING ABOUT SOFTWARE:

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It's demanding hard, cold business metrics and working with HP to reach them.

Continued from page 22 ance effort is much more restricted."

Visa, which has been at the forefront of the PCI initiative, did not respond to a request for comment on the NRF letter.

A Visa spokesman, however, did note that a section of the PCI rules require that retailers purge their systems of certain types of cardholder data, such as cardverification codes and block data for personal identification numbers (PIN).

IT managers and security experts listed various frustrations with PCI regulations and those who enforce them in explaining why some retailers are missing the deadline.

#### LEBACY ISSUES

Amer Deeba, chief marketing officer and vice president of product marketing at Qualys Inc., a Redwood Shores. Calif-based vendor of IT security systems, noted that large companies with highly distributed, older computing environments can expect to have an especially hard time applying PCI security controls.

"Many of the big [retailers] are handling credit card information from all around the world and storing it in legacy systems that are no longer supported or updated" by vendors, Deeba said.

It took a yearlong effort for Steak n Shake Co., a Tier I merchant, to comply with the PCI standard, said Sean Smith, technology director at the Indianapolis-based restaurant chain.

The rigorous effort, he said, included the creation of security controls, such as systems to monitor file integrity and capture event log data, for a "very legacy environment."

# We build these higher walls, and the hackers bring in taller ladders, and this kind of keeps scaling up all the time.

DAVID HOGAM, CIO, NATIONAL RETAIL FEDERATION

A proper security upgrade in a distributed legacy environment could require system upgrades and months of dedicated manpower that could cost millions of dollars, Gartner's Litan noted.

The high potential cost has prompted many retailers to apply "Band-Aids to patch the problems" while they juggle other priorities at the same time, she said, adding that "the effort is far from

straightforward."

Jay White, global information protection architect at Chevron Corp. in San Ramon, Calif, also noted that different PCI auditors often interpret the regulations differently. "The biggest challenge

with PCI is that you are at the mercy of the auditors and their skill set," White said. With some auditors, "everything becomes black and white," while others take a more nuanced view of the controls a company might

have in place, he said.

White noted that Chevron
has implemented a lot of controls that are not PCI-specific
and are instead part of a core
set of steps the company has

taken to address multiple compliance objectives. While the PCI standard allows companies to use

certain alternative controls under some circumstances, PCI auditors may disagree on what measures are OK. "The result is that a lot

"The result is that a lot of companies have gone through multiple assessments and keep getting a lot of different answers," about their compliance, said Alan Bird, vice president of business development at Cyber-Ark Software Inc., a security vendor in Newton, Mass. "A lot of people are filing a lot of papers to get their compensating controls signed off as being compliant."

White said that Chevron has dedicated "literally an army of people" to ensure that the company complies with PCI and other regula-

tory requirements.

He noted that as part of
the effort, the oil company
set up a technical control
board to, among other
things, keep track of vulner-

abilities, patches and other security issues that could affect compliance.

"I can see where compa-

nies can run into problems if they are treating security as an afterthought," he added. Steve Schlarman, chief compliance strategist at

Brabeion Software Corp., a Reston, Va.-based developer of compliance management software, said it's important that companies sustain efforts to comply with the PCI standard. "Sustainability is a key

point," he said. "In most organizations, their network of today is not what their network of tomorrow is going to look like."

Branden Williams, director of the PCI practice at security vendor VeriSign Inc. in Mountain View. Calif., added that retailers must continually take into account ongoing changes in the business and threat environments to avoid falling out of compliance.

"(Retailers) are treating PCI like a project and not as a journey," and therefore they often fail to implement adequate program management processes, he said.

ment processes, he said.

And even companies that
do achieve PCI compliance
"are often just one change
control away from noncompliance," Williams said.

#### FINES LEVIED

Though the credit card companies have kept mum about whether retailers have been penalized for noncompliance, Garter noted in a report that several companies were fined even before the Sept. 30 deadline.

For example, Visa levied over \$4.5 million in fines in 2006 and \$3.4 million a year earlier, the report said.

The fines were assessed against merchant banks that authorize retailers to accept credit card transactions. The banks, in turn, passed the fines along to the merchants, the report noted.

Fines were also levied against companies that had been hit with data breaches or had been found to be storing magnetic stripe data contained on credit cards.

Bird noted that the decision by credit card companies not to announce the fines may be causing some merchants to believe the standards aren't being seri-

ously enforced.
"If the credit card brands want this thing to move ahead," Bird said, "they are going to have to publicly levy some pretty hefty fines against major retailers" for noncompliance with PCI requirements.



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### Privacy Concerns Dog IT Efforts to Implement RFID

Employees often rebel against plans to include chips in corporate ID badges. **By Matt Hamblen** 

RIVACY CONCERNS related to the use of radio frequency identification technology are reaching new heights, as legislators increasingly look to restrict RFID deployments and corporate employees criticize efforts to use it in identification badges.

At the same time, champions of the technology contend that not enough is being done to promote the value of RFID. For example, they say, it can be used to track tainted foods or counterfeit drugs or to reduce inventory-tracking costs.

IT executives attending the RFID World conference here last month said employee fears have forced some companies to change or even cancel plans to use badges embedded with RFID technology.

About 150,000 workers at The Bocing Co.'s Integrated Defense Systems unit in 70 countries now use RFIDembedded badges to gain access to buildings, said Steven Georgevitch, senior manager of supply chain technology. But adding the technology to ID badges at the St. Louis-based aircraft manufacturer was not an easy task, he acknowledged.

Implanting RFID chips in badges "is a really, really big concern" among employees, Georgevitch said. "Employees will always ask... "Will they track me in the bathroom?"

Georgevitch said the company was able to overcome many of the privacy concerns by working closely with employees to explain the purpose of the technology and to hear their comments, he said.



Most IT people never want to talk to workers, but I say go test [RFID with them] so people feel comfortable.

STEVEN BEONEUTICH, SCHOR MANGEROF SUPPLY CHAIN TECHNOLOGY, BEING MINEGRATED DEFENS SYSTEMS.

"Most IT people never want to talk to workers, but I say go test [RFID with them] so people feel comfortable," he said. At Beth Israel Dezconess Medical Center, employee concerns prompted

Center, employee concerns prompted the abandonment of plans to add RFID technology to employee badges about a year ago, said CIO John Halamka. "The staff reaction was, 'Oh my God, Dick Cheney just wants to watch me,' said Halamka, who is a Computerworld columnist. Halamka said the Boston-based health care organization uses RFID to track medical equipment, which cuts the staff time previously needed to find the devices.

Ben Aderson, manager and counsel for technology policy and state government affairs at the AeA, formerly known as the American Electronics Association, noted that more and more state legislatures are seeking to limit the use of RFID bechnology. While RFID privacy concerns "are taken very eriously in state governments across the U.S.," most legislators don't underthe under the properties of the the control of the properties the propertie

technology, he contended.
Aderson said 50 bills
aimed at limiting RFID
were introduced in 19 states
in 2007, and three became
law. However, he noted,
"nothing catastrophic
has passed to completely
ban RFID in a state."

Wisconsin and Idaho have passed laws prohibiting the implantation of RFID chips in people without their consent, said Aderson, adding that five more states are debating similar measures. Still others, such California, have laws requiring

businesses to notify consumers that a product has a tag.

"A concern of ours is that people don't realize how predominant RFID chips already are," he said, noting that some of the laws would cover cell phones equipped with the chips. The RFID industry "has to create knowledge of the value of RFID," Aderson added. "That's a very key element, to emphasize what is out there that consumers benefit from."

Jim Harper, director of information policy studies at the Cato Institute said that the RFID industry should agree to oppose using RFID to Identify individuals, their locations and backgrounds.

"Let's not do human identity stuff," Harper said. "Great things are coming from RFID, but we want it done right to protect privacy."



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# the Mark



#### **Blue Skies for Open Source** EATHER.COM, the online arm of Atlanta-based

Weather Channel Interactive Inc., last month moved its final customer-facing, proprietary application to open source. Chief Technology Officer Dan Agronow doesn't say whether his staff broke a bottle of bubbly over the new MySQL app server that replaced an Oracle system, but you can tell he's happy. He excitedly lists other recent and impending tools

for weather-obsessed consumers: mobile apps for the iPhone, gadgets for Vista and Google, and mashups combining Java, JavaScript, Flash and Microsoft Virtual Earth. And they're mostly built with and totally run on open-source technology.

Agronow credits hie 70-odd IT staffers' skills at digging into open source software and changing it in order to crank out application after application. It also helps that the staff

is very good at what it does, Consider Weather.com has no support contracts with any open-source sur pliers, relying on online forums for free tech support. Agronow says the

company's success with open source has made it "part of the consideration of an acquisition." A merger with an open-source operation, he says, is more likely to lead to "one plus one equals three" arithmetic during technology and business integration. Open source wasn't always a darling, of course. "There was a lot of risk and a lot of naysaving" when he helped steer Weather.com to open source about four years ago, Agronow recalls. Today, however, the IT climate in Weather.com's customer-facing data center is open and clear.

#### **Bring Your Board** Into the 21st Century

Low-tech white-collar workers are being weeded out of companies, even if they sit on the board of directors. So says loe Ruck, CEO of Board-

Vantage Inc. in Menlo Park, Calif. He acknowledges that some board members still fit the stereotype of technically dim white males who have personal assistants print their e-mails. But, he argues, the increased spotlight on a board's performance and more treacherous compliance issues mean "the ceremonial aspect of a board's work is going away." Today, he says, CEOs seek board members who can stay up to the minute on news and information affecting the company, which requires much more tech savvy than it once did. One way for boards to stay current is with the BoardVantage portal. It's run by a company's general counsel to do things like schedule meetings and prepare the "board book" of documents necessary for each meeting. This week, BoardVantage is adding features such as digital certificates and the ability to send encrypted mail to BlackBerries and Treos to its SAS 70 Type II secure service, Pricing is implementation-specific.

#### Control Change. Improve IT

James Johnson is frustrated with CIOs. The CEO of Portland, Ore.based Tripwire Inc., which develops configuration management and audit

software, says be's mystified that CIOs aren't more aggressive with change control on IT systems. He cites numerous studies from the IT

Process Institute in Eugene, Ore., that show that IT operations that follow strict guidelines to enforce change perform better than those with weak controls in areas such as delivering projects, detecting security breaches and server-to-admin ratio. Johnson says the objective data itself should have CIOs pushing better internal controls. "Instead, the tone at the top permits a 'cowboy culture' " when it comes to change, he says. He argues that CIOs should "grow up" and let go of their "hero" culture if they want their organizations to become consistently successful for the business.

### The Highly Reliable Times

VOLUME 1 - ISSUE 5

Windows Server 2003

#### SWISS SEES RELIABILITY SOAR WITH WINDOWS SERVER, CHECKS RED HAT AT GATE



THE SWISS INTERNATIONAL AIR LINES bub. located in Zurich, Switzerland.



#### Global Airline's Migration Yields 99.95% Reliability

By MICHAEL BETTENDORF

ZURICH—Swiss Inter-running," says Meyer. national Air Lines (swiss), Switzerland's national air-Switzerland's national air-line, serves 70 destinations around the world with 6,500 employees in 105 branch offices. Today, 14% of swas's total ticket sales are processed through its online flight booking m at Swiss.com, with volreasing by 30% per year this site because of its impor-tance to the airline's business, but the original Red Hat Linux-

Reliability also drives ket perception in the air s CIO Frank Meyer.

ation, Meyer and his team chose Windows Server® 2003 and .NET. Since migrating seen reliability rise to 99.95%. In addition, while the previous Red Hat Linux-b now handle significantly more traffic than that. Meyer is a fident about the effect of th ber of users ena

For the full swiss st

#### STUDY: Side effects of reliability can include smiling, calmness

IT executives such as Frank Meyer (left) w



THE GRILL

### Michael McRobbie

Indiana University's president talks about moving up from CIO, balancing open source and Microsoft, and enabling innovation.

Title: President

amily: A remarried wid

bbies: Travel and realistory and the arts)

Long renowned as both a basketball powerhouse and a party school, Indiona University has in recent years begun to get noticed for its IT initiatives. Newsweek called IU its "hottest big stote school" in 2005, saying that features such as its I-Light broadband network were helping it ottroct out-of-state students. Envisioning I-Light and getting it built were among Michael McRobbie's mony achievements as IU's CIO. Later, he helped to establish the first informatics department at a U.S. university. Those wins propelled a meteoric climb that culminated with his selection over 200 candidates in Morch as the new president of the nine-compus IU system. The 56-year-old Australian now oversees 100,000 students, 15,000 foculty members and a budget of \$2.6 billion.

How did you work your way up from an IT managerial role? I didn't jump from CIO straight to president. I went from CIO to vice president of research, to provost, to president. Though it was relatively quick [McRobbie was named CIO in 1997], it was also a fairly normal progression, as many college presidents are provosts first.

Continued on page 32

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If it's a big institution and you're the CIO. you have a pretty big span of control.

Continued from page 30

Was there any bias against you for being an IT guy? An IT background alone is probably never enough for a top position. But it gives you a lot of important skills, such as being a strategist. If it's a big institution and you're the CIO, you have a pretty big span of control. That teaches you to think in ways that are helpful if you are aspiring for a position beyond CIO.

So your big leap was from CIO to VP of research? Yes, that was very important. Research is a very different world. It's not centralized; it depends largely on the independent faculty member, My iob was to help that faculty member get their proposals done more quickly.

ensure that all the compliance issues are taken care of, that they can get seed money to start on proposals, etc.

What's the IT connection there? IT is absolutely fundamental to research and education in every academic area

- whether that be anthropology or zoology. This has been true for decades in the sciences; now it is just as valid in the humanities and the arts. too. You want IT to add to the intellectual productivity and educational capability of an institution. But you don't want it to be obtrusive. You want it to be a tool that always works, like electricity or the telephone.

Do you think a university system that aspires to be in the first tier research-wise needs IT as cutting-edge as a Fortune 500 company? It is the university's responsibility to provide a high-quality base level of infrastructure without being bleeding-edge. My philosophy is that base services such as networking or enterprise software licenses are a central responsibility. The life-cycle funding agreements we have in place, which are exactly comparable to what you find in Fortune 500 companies. should be organized and managed centrally. But the level you want to g beyond that is determined by the individual departments or schools.

Do you have any pet technologies that you are particularly keen on? I think opensource software will be very important. I also really think that providing as much connectivity as possible will enable innovation to flourish. Many IT innovations have come out of university environments from students who have a lot of bandwidth available to them. I know that it's controversial to say this, and I'm well aware that filesharing is a double-edged sword. But there's pretty much a direct lineage from file-sharing to the iPod and now the iPhone.

We have to respect intellectual property. But the forces of technology are very difficult to harness; one needs to adjust business models to accommodate these forces.

To me, it is very instructive that the company that invented the iPod was Apple and not Sony, I think that's a

comment on the sort of the intellectual and technology environment of this country's universities.

You say you're interested in open source, but under your leadership, IU has been a cutting-edge adopter of Microsoft

technologies. Oh sure, but I don't think there's a contradiction between the two. I think there are areas where the best products are the commercial products and other areas where there is still opportunity for innovation. Unless you're a zealot, you understand that and you work within that frame-

What do you think about the preponds ance of foreign students in U.S. comp ience and engineering departments? I

see us as competing for the best brains in the world - in this country, but also internationally. You simply cannot shut yourself off from the rest of the world. I think one can have concerns about the impact of a global marketplace. But it's very difficult to turn back the clock.

What is your goal for IU's infor

department? I've just appointed a new dean for informatics, which we merged with computer science. Informatics is really about the application of IT in a specific discipline, such as bioinformatics. It has its own intellectual discipline, its own software, its own problems. You can no longer take an IT person and hope to turn him into a bio-informatics expert overnight by boning up on a few books. You actually need to have a few years of training in both IT and biology. I want our informatics department clearly seen to be the very best in the nation at what it does

What advice would you give to CIOs trying to make a leap similar to what you've done? IT is not an end in itself: it is a

tool. Technology is very seductive, and one can easily get carried away with the latest whiz-bang technology or devices - and the ephemeral hopes for what these might be used for - and forget to ask the cold, hard questions such as, "What is this going to do for the bottom line of my organization?"

- Interview by Eric Lai

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### John D. Halamka

### An About-face on Flexible Schedules

N MY 10 YEARS AS A CIO, I've strongly believed that productivity is best when everyone works in close physical proximity. That gives you the benefit of the "over the cubicle" effect of being able to brainstorm ad hoc, respond

bicle" effect of being able to brainstorm ad hoc, respon to urgent issues as a group and build trust within the team.

But the world has changed, and new factors have to be considered. First, the commuting needed to bring everyone together has become burdensome and expensive. Commutes can now take two hours or more, and gas prices are causing hardship. At the same time, environmental consciousness about the carbon impact of those long commutes is on the rise. Second Internet connections are becoming faster, more reliable and cheaper. I have a 20Mbit/sec. fiber connection in my basement for \$40 a month.

We also have many more means of communication: e-mail, instant messaging, blogs, wikis, webconferencing, videoconferencing, Face-to-face meetings that take weeks to schedule are inadequate for the pace of IT change.

for the pace of IT change. How should a CIO react to this changing landscape? I believe we have to explore the entire spectrum of flexible work arrangements.

really necessary? I find that an in-person kick-off meeting to initiate a project works best. Collaborators can introduce themselves and build a common framework for working together. Thereafter, conference calls, online collaboration tools and e-mail are sufficient.

bs 8 a.m. to 5 p.m. the best way to staff an office? Not if it implies hours on the road each way. If working from 10 a.m. to 7 p.m. cuts commutes by an hour each way, it's likely that productivity and staff satisfaction will rise.

is being in the office even necessary? For some jobs, the interruptions of the office may actually reduce productivity. Some structured time in a home office

■ Things have changed, so new factors must be considered.

within the team.

may be preferable.

Of course, there are issues. Home offices need infrastructure support—networks, desktops and connections to the corporate phone system. Flguring out the best way to service hundreds of remote locations will require planning and pilots. The technology may on tend to be complicated, though, videoconferencing is styllegonal former in its properties.

more locations will require planning and pilots. The technology may not need to be complicated, though. Videoconferencing isn't always necessary, for example, since phone calls and Web-based remote presentation tools are very efficient.

Accountability is key, so you may need management tools to monitor specific project milestones and productivity goals. But you may be pleasantly surprised. In a recent pilot in Massachusetts, a health insurer found that productivity for 200 staffers working from home rose 20% — and only two staffers had performance problems.

Equity is another problem. Some staffers, such as those doing direct desktop



service or training, need to be on-site. But you can still offer some flexibility, letting them put in four 10-hour days, say, or giving them every other Friday off.

Security and privacy are concerns that loom large for me, since my IT organization is part of a large health care provider. If protected health data is to be accessible in employees' homes, we will need to investigate biometric devices, re-examine application time-ours, strengthen

investigate biometric devices, re-examine application time-outs, strengthen surveillance of audit logs and ensure end-to-end security from data center to the home.

Over the next year, I'll

Over the next year, I'll be piloting the technologies, policies and business processes needed to manage IT professionals in flexible work arrangements. I expect that retention, productivity and employee satisfaction will rise as the time spent commuting falls. I'll keep you updated on the progress—from my home office.

John B. Halamka is CIO at CareGroup Healthcare System, CIO and associate dean for educational technology at Harvard Medical School, chairman of the New England Health Elec-

nology at Harvara metace School, chairman of the New England Health Electronic Data Interchange Network, CIO of the Harvard Clinical Research Institute and a practicing emergency physician. You can contact him at jhalamka@caregroup. harvard.edu



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# GLOBAL ERP

Is it worth the angst? Three multinationals say yes. **By Thomas Hoffman** 

INCE COLOROGO INC.
consolidated all of its canadidated all office and serven manufacturing sites continue to the benefits have been indicated and office and serven in 2001, the benefits have been indisputable. The specialty chain increased its annual inventory turns by 40%, ofer it books each conce did and has increased in 2005, faster than it conceded and has increased in 2005, faster than it conceded and has increased in 2005, faster than it conceded and has increased in 2005, faster than it conceded and has indicated and in 2005, faster than it conceded and has indicated and in 2005, faster than it conceded and has indicated and in 2005, faster than it conceded and has indicated and in 2005, faster than it conceded and in 2005, faster tha

instance of Oracle Corp.'s II.5.10
E-Business Suite has also been fraught with challenges for the West Point, Pabased company. Those included cleaning and verifying data from legacy systems, standardizing business processes globally and getting buy-in from business leaders in locales as disparate as Brazil, Singapore and the U.S.

"It was hard work," says Cozzone, who oversaw the final stages of the system implementation.

Transitioning to a single, global instance of an ERP system is a heady challenge for large and midsize multinationals alike. "It's a real struggle for many companies to have consistency around their business processes" because of differences in regional business requirements, says Rob Karel, an analyst at Forrester Research Inc.

But companies that have achieved a single instance say it's worth the struggle to streamline financial reporting and increase the visibility of operations around the world, because doing so allows executives to make decisions faster.

# CHANGE MANAGEMENT For many organizations, the toughest

challenge in moving to one ERP system is change management. "The organization has to reach consensus on business processes," says Jim Shepherd, an analyst at AMR Research Inc. in Boston. "That's far and away the most challenging aspect of these projects."

Goss International Corp. began moving to one instance of SAP AG's ERP system in 2002 in an effort to consolidate its global financial reporting, close its books faster and have greater visibility into operations such as manufacturing. Following its 2004 acquisition of

Colorcon CIO PERRY COZZOW says his team emphasized that moving to a single ERP instance would globalize businesses once confined to a single region.

Heidelberg Web Systems, Goss implemented the SAP system in its Bolling Brook, Ill., headquarters in 2005 and at facilities in the U.K. and Shanghai earlier this year.

Because Goss had stuck to SAP's industrial machinery and components industry template, there was a 95% correlation among its sites in how the SAP software was preconfigured and how the company ran its operations, says



Mike Masters, director of global applications and solutions at the printing press manufacturer.

Still, the project team had to work through regional differences. For instance, the French government requires that businesses report their inventory figures as a moving average. So the ERP project team had to adjust the SAP general ledger system used by its French unit so it could report one set of

figures to the French government and a standard set to the company. The experience at Millipore Corp.

was similar. "The toughest part of all of this was implementing a change management policy," says Tom Roy, manager of application services at the billerica, Mass.-based life science products and services provider.

The changes associated with Millipore's consolidated ERP effort started in 1999, when the company established central, round-the-clock support for Oracle ERP users in 32 countries, it was difficult for workers in the U.S. to replicate the IT support service that em-

ployees in Japan were receiving locally, says Roy, so "we had to put different business processes in place." Millipore placated many users by as-

signing three database administrators on rotational schedules to handle sup-

# COVER STORY

port calls from its international offices. One of the biggest pieces of the change management puzzle is gaining buy-in from local business leaders accustomed to suites tailor-made to support their unique business processes, says Forrester analyst Paul Hamerman. "There's often reluctance among business units

to give up the systems they use," he says. To work through those issues, the Colorcon project team had two forums for business leaders to advocate for their organizations' needs. Business process owners participated in regular discussions with the project team to make sure their requirements were being met. And director-level executives were able to track the project through the project management office and add their input. Cozzone's team also gained acceptance by reminding business leaders that the change was going to globalize businesses once confined to operating in a single country.

# DATA INTEGRITY

The most common technical challenge that project teams face is verifying the integrity of legacy data and moving it to the ERP environment. "One of the lessons learned is that you can never spend enough time on ensuring data



# The toughest part of all of this was implementing a change management policy.

TOM ROY, MANAGER OF APPLICATION SERVICES, MILLIPORE CORP.

quality." says Cozzone.

Early in Colorcon's project, when there were questions about the quality of a set of data, team members and executives didn't always agree on what needed to be done. "There was inconsistency about how to measure [qualityl and manage it," says Cozzone.

So the project team developed a data-quality dashboard to illustrate to business leaders why compromised data needed to be fixed before being entered into the Oracle environment. The dashboard demonstrates, for instance, how poor-quality customer contact information could lead to an increase in erroneous orders. The dashboard includes steps that business users can take to correct faulty data, and it quantifies monthly business improvements achieved by reducing bad data.

Each of the companies also had to work through minor issues in retiring legacy systems and so-called "ghost" systems - those used in various business units but unknown to corporate IT. "We're not a multibillion-dollar company, but we still had ghost systems," says Cozzone. "We made these a high

priority and got rid of them quickly." At Goss, when data from a legacy system was migrated to the SAP environment, the system would then be retired, explains Masters. Data from reporting applications that were needed and supported locally was retained and formatted for the SAP environment, but it didn't become part of the central transactional system, he adds.

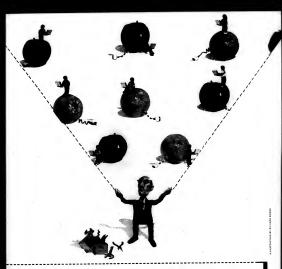
Millipore encountered relatively few data-integrity problems, since most of its operations were already running on Oracle when it transitioned to a single global instance of the ERP system in 1999, says Roy, But it did have to make big investments in high-speed bandwidth connections to help far-flung offices connect more easily to the centralized Oracle system in the U.S.

"You have to invest significantly to get some big [network] pipes," says Roy. "Before this move, some of our offices were accessing a computer in their own data room. Now, they're connecting with a system that's 5,000 or 6.000 miles away."

But it's all been worth it for Millipore. Like Colorcon, the company is now closing its books faster than before and has a much better global view of its inventory and financial data. "The only way we had that view before was either to query each database online separately or to run and print reports from each system," says Roy. Goss has gone from closing its fina cial books in seven days to five days, says Masters. But for it, too, the global view was the big payoff. "The single biggest value we've received from the single instance is increased visibility across the board," says Goss CIO Bill Rogers. "The bill of materials is visible; manufacturing orders are visible; financial reporting is visible. This all leads to more timely and more effective decision-making." ■



Tivoli. Take the business continuity assessment at: IBM.COM/TAKEBACKCONTROL/READY



Here's the rundown on some tools to help you support **Mac** and **PC users** at the same time. **By Ryan Faas** 

# Managing Apples And Oranges >>>>



# Information Management

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'n large computing environments, administrators can waste a lot of time going to individual users' desks and waiting as any new or updated software is loading.

A number of software packages offer remote troubleshooting and deployment options, but if you've got a mix of Macintosh and Windows computers, a single tool that supports all users and workstations, regardless of platform, is key.

and workstations, regardless of platform, is key.

The products discussed here all offer some level of cross-platform support and can help you efficiently manage the clients in your network.

# FILEWAVE

FileWare Inc. has been developing its flagship product for Mac networks for many years. FileWare operates in a client/server structure in which administrators define groups of individual clients and file sets that make up application packages as they exist in the file system after an application has been installed. File sets are associated with groups to establish a list of applications that are available to those computers.

At regular intervals, each FileWwe client quiries the appropriate server or servers to determine whether its configuration has been changed, the client downloads updated lits of file formance, FileWare Boosters can be installed in the network to distribute the load of file sets being transferred to clients.

OS X and Windows NT, 2000 and XP clients, but the server components work only for the Mac. Particularly useful features include

FileWave's seamless integration with client operating systems and its ability to generate reports about which software is installed on which machines.

#### NETOCTOPUS

Netopia Inc.'s NetOctopus Enterprise System Manager has also been available for quite some time. Its remotedeployment feature can be used to roll out applications, updates and collections of files, and it has an asset management tool and configuration system. It supports all common installer package formats for Mac OS X and Windows. It also includes a copy of Installer Vise for situations where you need to make your own install package to insert individual items into specific locations of the file system.

locations of the file system.

NetOctopus administrators can
organize computers into groups
that are then assigned software
and file configurations, and any
servers within your network
can be used to host installers.
This allows you to build
load-balancing into your
management plan while leveraging ex-

isting technology. NetOctopus is completely cross-platform; its server and client elements can run on Mac and Windows machines.

NetOctopus' asset management too is designed to help control inventory and licensning, and it can track computer usage patterns. It can be configured to detect disallowed files or activity on a workstation, as well

configuration tool that allows you to

remotely adjust one or more system

settings across multiple computers.

# LANREY This is a cross-platform deployment

tool, and both its server and client software can be installed on either Mac or Windows machines. Like other products, LANrev allows you to group com-

puters by type, location or function and then assign items to be deployed and maintained based on those groups. But it also offers the ability to integrate administration with Active Directory, allowing you to use existing organizational units to assign deployment roles. In addition, it lets you use Active Directory accounts to delegate deployment-administration rights.

Other features include a tool for creating installer packages using system snapshots, asset management tools and advanced license-management tools.

## RADMIND

Radmind is an open-source deployment and management tool that has been ported to Unix, Linux, Mac OS X and Windows. It's a client/server system that relies on load sets, which are snapshots of a workstation configuration. Changes to a load set are then propagated out to managed clients.

propagated out to managed citients.

Radmind goes a step further than other straight deployment systems. Each time a client is updated, any files that were not part of the specified configuration are deleted or returned to their prescribed state. To allow user documents to be retained,

Radmind supports two types of load sets: a positive load set that defines the flies that will be placed or retained on the client, and a negative load set that defines portions of the file system that will be left unmanaged.

Radmind lacks the more advanced features of some commercial packages, and it can be cumbersome to set up. As a system with a low-cost deployment, however, it can be quite effective.

## MANAGESOFT

MANAGESOT Deployment Manager is a multiplatform deployment and distribution system that supports Windows, Mac OS X and most Unix/Linux distributions, though its management tools are Windows-based. It integrates with Active Directory, allowing you to use existing organizational units to set deployment and distribution policies.

Manages Of Corp. rulies on a distribution policies.

ManageSoft Corp. relies on a distributed computing model, enabling any server in a network to act as a distribution node for files and applications that

Continued on page 44



the same amount of work.1

\_DAY 89: Our power and cooling costs are out of control. We spend the bulk of our IT budget just keeping the data center cool. I told Gil we need to go green in a big way.

\_DAY 91: Gil took us green...kelly green, to be exact. \_DAY 93: You don't go green with paint. You go green with IBM Cool Blue<sup>th</sup> technology and energy management services. Advanced server and storage virtualization can help consolidate our boxes to lower energy usage. And the new IBM POWERS\* systems help us use less energy doing

\_Our data center will be green now. And painted white.





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## SOFTWARE

Continued from page 42 are deployed to clients. Its software also supports peer-to-peer distribution of files throughout a network. This can be helpful in smaller organizations that have only one or two servers at each work site and that can't afford to dedicate server resources to deployments and software updates. It also integrates well with the company's other products, which include asset and license management systems, security-update management tools, and Windows deployment automation systems. -----

#### LANDESK

LANDesk Software Inc.'s LANDesk Management Suite provides deployment, remote troubleshooting, and asset and license management capabilities for Mac OS X, Windows and Linux computers. It can generate detailed reports about clients and is even capable of notifying administrators when changes are made to systems or when media files in formats including MP3 are present on a computer.

LANDesk's deployment tools are designed for both traditional unicast and targeted multicast environments Their ability to handle the latter is particularly helpful during large updates of numerous clients. They also provide a range of scheduling and automation options for deployments. The suite supports peer-to-peer distribution of files, as well as a more traditional server-based approach. It can handle a range of package formats and includes tools for creating custom packages. As part of its software-distribution

model, LANDesk supports a number of Mac OS X technologies, including shell scripts and Automator workflows. It also supports disk image-hased deployments and offers a unique remoteimage feature that allows administrators to create disk images based on remote workstations. (Most diskimaging tools must be run locally.) Although LANDesk's management

console is not available as a Mac OS X application, the company offers a Wehbased console for Mac administrators. LANDesk Management Suite also integrates very well with a directory services infrastructure. This allows you to use Active Directory - or an alternate Lightweight Directory Access Protocol



# More Information

nduct: FileWave Contact: FileWave In San Francisco (888) FileWave ww.filewave.com

Product: LANDesk Management Sui Contact: LANDesk Software Inc.

South Jordan, Utah (800) 982-2130

ww.landesk.com Product: LANrey Contact: LANrey LP Addison, Texas (214) 459-0136 www.lanrev.com

Product: ManageSoft Deployment Manage Contact: ManageSoft Corp.

(800) 441-4330 www.managesoft.com

Products: NetOctoous and Timbuktu Contact: Netopia Inc.

(Acquired by Motorola Inc., Feb. 2007) Emeryville, Calif. (510) 420-7400

Product: Radmind Contact: Radmind.com technology, such as Novell NDS/ eDirectory - to create deployment policies based on organizational units and to assign access rights for distribu-

tion and remote troubleshooting. Unlike LANDesk's other remotetroubleshooting systems, the remotetroubleshooting components of this suite offer cross-platform support. They integrate with the suite's inventory database and asset-control features as well as with directory services.

The suite can log all remote-control activities. It's designed to integrate with existing help desk ticket systems, and it offers secure access, integrated chat and file-transfer capabilities, and the ability to shut down and reboot computers remotely.

#### TIMBUKTU

Netopia's Timbuktu Pro is among the oldest remote-troubleshooting tools. The software supports Windows and Mac client and management software. It also integrates with Skype for voiceover-IP chat while users are providing remote support or collaborating. Timbuktu is available in a range of packages, including one that offers serverhased installation and management of the Windows client to networked PCs. Another provides a Weh-based turnkey system, known as TimuktuToGo, a good option for consulting firms.

#### NTRSUPPORT

NTRSupport is a Windows tool that can be used to remotely control Windows or Mac OS X computers. Users can access NTRglohal's offering via a Weh site or an e-mail link. When a client initiates a request, the request is funneled through a server to a support staffer who can initiate a remote-control session of the client's computer.

This approach differs from that of many other products in that it doesn't require an agent to be preinstalled on the remote computer. Software developers, service providers and consulting firms may find it helpful. Support staffers can communicate with users via text chat, voice over IP and videoconference, and they can respond to up to five requests at a time. Faas is a freelance writer and technol-

ogy consultant. Contact him at ryan@ ryanfaas.com.





# ystems Concert

Trans World Entertainment's IT team had just 30 days to integrate 335 Musicland stores with its backend systems. Here's how they did it. **By Robert L. Mitchell** 

N MARCH I, as Trans World Entertainment Corp. prepared to acquire Musicland, TWE's CIO, John Hinkle, sat in on a due diligence meeting with the management of the bankrupt music store chain. His challenge: Integrate the antiquated point-of-sale (POS) systems in 335 stores owned by Musicland with the finance and replenishment systems that served TWE's existing 800-store business and do it before the deal closed at the end of the month. As if that weren't enough, TWE management wanted all of the Musicland stores across the country to be networked and running on TWE's own POS system and all employees trained within 90 days. Hinkle's team had been down this

road before, having successfully integrated five other chains, ranging in size from 30 stores to 400 stores, in the past 10 years. But the 30-day window was a first. The fact that management even considered it says much about IT leadership, says Alex Cullen, an analyst at Forrester Research Inc. in Cambridge, Mass. "It shows that the executive tea had a lot of confidence in the CIO."

TWE had few options. "That was all driven by Sarbanes-Oxley," says controller John Anderson, noting that Musicland didn't have any documented controls for regulatory compliance in place. "We would have had to hire an outside audit firm, and that would have been very costly." The incremental investment required to move quickly was "not insignificant," Hinkle adds, but it paid for itself in the first month. Hinkle created several project teams to handle the transition. They included representatives of TWE's financial, merchandising, and planning and allocation operations. Jim Razzano, director of software development, worked with Musicland's IT staff to map data from Musicland's mainframe to Albany, N.Y.-based TWE's back-end systems. Having a standardized data interface made the job easier.

By mapping data into a proven interface, we greatly reduced the time for testing and validation for processes," Razzano says. But developers still had to write some one-time load routines

Continued on page 48

## \_INFRASTRUCTURE LOG

\_DAY 84: Feeling really disconnected. We're not getting the most out of our existing assets. Service and application integration is a nightmare. We've got ta stop working on these islands.

# \_Please rescue me from this lack of connectivity.

\_DAY 87: We're saved! With IBM WebSphere solutions we can service-enable and connect our existing assets for mission-critical goals. Now we can reuse existing applications and sove money by eliminating redundant systems. We're ready far any SOA integration project.
\_Plus, no more jellyfish stings.

IBM.



WebSphere

BM OM/TAKEBACKCONTROL CONNECT

# PREMIER 100 CLOSE-UP

continued from page 46 waere data from the Musicland system couldn't be delivered in the proper

Fransaction codes had to be mapped between financial systems, and netting the replenishment systems to service the new stores required arguiting store configurations, capacities and inventory levels into TWF's system, including all of the stock-keeping unit codes for ev-

ery product sold in Musicland stores. All of Musicland's eight-digit SKUs had to be inspeed to the 12-character universal product code formar that 1 WE had With 20,000 to 30,000 SKHs per stare to deal with and 1.5 million. S1.12- in 1 W1 Sproanct database, "it was also an feytract, transform and load]

project on a grand scale," Hinkle says. The reams worked seven days a week until the deadline. The entover took place on a Monday, when TWI began receiving daily batch uploads of store data from Musicland's mainframe. "It took two or three days to work the kinks out," says Hinkle, but the systems were tracking inventory. replenishing the acquired stores and generaling reports that included the Musicland properties by week's end-

PROJECT MOVES TO STORE LEVEL With the back-end systems running smoothly. Hinkle focused on getting the stores online and transitioned to new POS systems. Director of FT Operations Roy Summons arranged to beef up the back-end corporate systems to handle the extra load and was already working on installing in-store networks and broadband connectivity at each location. "The systems [in Musicland's stores) were so old that they had a modern on every register for credit card checks," he says.

Working with NCR Corp. and PDS software supplier Epicor Software Corp. to get all of the equipment staged and shipped to the stores on short notice was the biggest challenge, but the longest delays came from waiting for the installation of DSL or backup framerelay services, which went right down to the wire. In many locations, broadband service simply wasn't available. "We ended up with 80 stores on frame," which, at 256Kbit sec., was slower and more expensive than DSL, he says.



Retailer TWE sells nearly \$1.4 billion worth of music, movies and electronic games each year at about 1,000

stores nationwide

TWE spent \$50,000 on outside consultants and dedicated five programmers to the project to lete the initial system inte gration phase. The company spent another \$2.8 million on hardware and software.

Simmons contracted out the networking job, but POS installations and system training were handled by 25 inhouse teams that included some store managers and district managers, buicor staged the systems for the teams. "All they needed to do was take it out of the box, plug it in, and they were ready to go," says Diane Cerulli, director of product marketing, who was Epicor's project manager for the job.

Court Newton, director of store systems, says usine in-house staffers was a win. "They had more skin in the game than independent contractors. he says. Newton spent the first six weeks making preparations, including bringing in the teams for a weeklong training before sending them into the field, "By far, this was the most wellorehestrated platform transition Eve ever seen," says Paul Cox, a Musicland regional manager who participated in the installation training

The teams then spent six grueling weeks on the road, "We changed every thing: hardware, software, networks, policies and procedures. It was a relent less page of execution for six weeks. There were no fallbacks," Newton says Statfers had to work around problems such as damaged shipments, improperiy staged equipment and incorrectly placed network picks. Some 30 to 40 stores that didn't have either broadband or frame relay were temporarily set up with dial-up connectivity. "If there was a problem, we ran into it." Newton says.

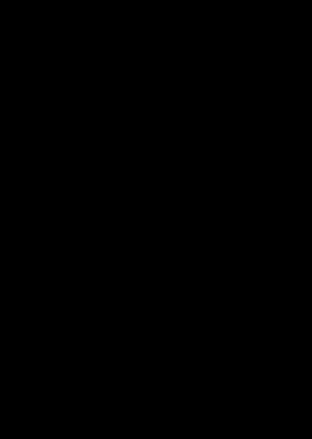
All stores were online in 89 days - one day ahead of schedule. Once the last store came online in late fune. batch uploads from Musicland's mainframe were turned off. "It was four months to total transition" from the time of the first initial meeting. Hinkle says. That's remarkable, says Cullen, adding that many integration projects get bouged down after the deal closes.

Having standardized, repeatable processes was the No. I key to success. Hinkle says. Consistency was also important. For example, while no two stores have the same topology, the network architecture is exactly the same. Good relationships with TWES vendors, including AT&T Inc., Epicor, IBM and NCR, were vital to keeping the project on track and costs in check. TWF regularly gave some of its business to key partners rather than forcing them to bid on every job. That paid off when Hinkle asked vendors to bend over backward to meet the 30-day window. "We paid very few premiums, he says. When you work closely to-

gether, you can achieve rapid results." Finally, FW1's "train the trainer model and the use of internal staff for the field installation and training made a big difference. "It gave them handson experience," Hinkle says. The new system gives Cox profit and loss reports for his stores within seven days of closing much taster than the 30 days the old system required.

TWF's approach is unusual, says

Cullen "If you want to move really fast, your normal melination is to get professionals who are experienced." he says. By using internal staff, TWF no. doubt took a productivity hit from having the teams on the road rather than doing their normal jobs. But leveraging the Musicland store management's familiarity with the staff probably helped smooth the training. Cutlen says Cox says using managers as installers and tramers had another side ben-



## PREMIER 100 CLOSE-UP

Continued from page 46 where data from the Musicland system couldn't be delivered in the proper format.

Transaction codes had to be mapped between financial systems, and getting the replenishment systems to service the new stores required inputting store configurations, capacities and inventory levels into TWE's system, including all of the stock-keeping unit codes for every product sold in Musicland stores.

All of Musicland's eight-digit SKUs had to be mapped to the 12-character universal product code format that TWF used. With 20,000 to 30,000 SKUs per store to deal with and 1.5 million SKUs in TWE's product database, "it was like an [extract, transform and load] project on a grand scale," Hinkle says.

The teams worked seven days a week until the deadline. The cutover took place on a Monday, when TWE began receiving daily batch uploads of store data from Musicland's mainframe. "It took two or three days to work the kinks out," says Hinkle, but the systems were tracking inventory, replenishing the acquired stores and generating reports that included the Musicland properties by week's end.

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the installation training. The teams then spent six grueling weeks on the road. "We changed everything: hardware, software, networks, policies and procedures. It was a relentless pace of execution for six weeks. There were no fallbacks," Newton says. Staffers had to work around problems such as damaged shipments, improperly staged equipment and incorrectly placed network jacks. Some 30 to 40 stores that didn't have either broadband or frame relay were temporarily set up with dial-up connectivity. "If there was a problem, we ran into it," Newton says.

All stores were online in 89 days one day ahead of schedule. Once the last store came online in late June, batch uploads from Musicland's mainframe were turned off. "It was four months to total transition" from the time of the first initial meeting, Hinkle says. That's remarkable, says Cullen, adding that many integration projects get bogged down after the deal closes.

Having standardized, repeatable processes was the No. I key to success, Hinkle says. Consistency was also important. For example, while no two stores have the same topology, the network architecture is exactly the same. Good relationships with TWE's vendors, including AT&T Inc., Epicor,

IBM and NCR, were vital to keeping the project on track and costs in check. TWE regularly gave some of its business to key partners rather than forcing them to bid on every job. That paid off when Hinkle asked vendors to bend over backward to meet the 30-day window. "We paid very few premiums," he says. "When you work closely together, you can achieve rapid results." Finally, TWE's "train the trainer" model and the use of internal staff for a big difference. "It gave them handson experience," Hinkle says. The new

the field installation and training made system gives Cox profit and loss re ports for his stores within seven days of closing - much faster than the 30 days the old system required.

TWE's approach is unusual, says Cullen. "If you want to move really fast, your normal inclination is to get professionals who are experienced," he says. By using internal staff, TWE no doubt took a productivity hit from having the teams on the road rather than doing their normal jobs. But leveraging the Musicland store management's familiarity with the staff probably helped smooth the training, Cullen says

Cox says using managers as installers and trainers had another side benefit. "The strongest byproduct was the connection with other [managers]," he says. "Those relationships live on."

# Put Your IT Passion to Wor

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# **How to Influence Anyone**

In IT, influencing those over whom you have no authority is the key to success. Here's a strategy for doing it. By David Maxfield HEN IT COMES to influence, we stink. We stink as individuals, we stink as organizations, and we stink as a

society. Consider just a few examples:

Dieters spend \$40 billion a year on weight-loss products, and 19 out of 20 lose nothing but their money (National

Eating Disorders Association).

Some 70% of smokers quit, then resume in less than 12 months (American Heart Association).

■ Companies spend more than \$300 billion for training every year, but less than 10% of what people are taught sticks ("Transfer of Training: A Review and Directions for Future Research," by TT. Baldwin and J.K. Ford, 1988).

Two out of three criminals are rearrested within three years (U.S. Department of Justice).

If influence is the capacity to help ourselves and others change our behavior, then it is clearly one of the most vital, yet scarcest, commodities on the planet. We all want influence, but few of us know how to get it. And in IT, the ability to influence those over whom you have no authority is the difference

Continued on page 52

# Chickens are hypnotized by drawing a line in the dirt over and over.

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Continued from page 50 between success and failure.

I'm going to show you a new view of influence that will help you lead change within your IT organization and beyond.

Mike Miller employed this influence strategy when he became vice president of development at Sprint PCS Group, whose 3,000-person IT organization hadn't met a product release date in years, was running well over budget and had morale that was in the gutter in less than IZ months, Miller in less than IZ months, Miller in less than IZ months, Miller in less than IZ months, in less than IZ most in less than IZ most provement in on-time delivery of software releases, more than a 50% improvement in productivity and a 10% increase in employee satisfaction.

The key to successful influence lies in taking these three powerful steps:

1. Identify a handful of high-leverage behaviors that lead to rapid and pro-

found change.

2. Use personal and vicarious experience to change thoughts and actions.

3. Marshall multiple sources of influence to make change inevitable.

IDENTIFY 'WTAL' BEHAVIORS. The first step to any successful influence strategy is to decide what you're trying to change. There are three big ideas here:

Focus on behaviors. Don't even begin to develop your influence strategy until you've carefully identified the behaviors that need to change. Interventions—such as educational courses, reorganizations and new equipment—should be considered only after you've determined the behaviors that will lead in success.

A few improved behaviors can drive a lot of change, Successful change agents don't spread their efforts across 10 priorities. They understand that profound change requires a precise focus, so they home in on three or four vital behaviors. For example, Sprint was plagued with "project chicken." Instead of being frank when they were behind schedule, project managers kept silent, hoping that others would admit to problems and take the heat for delays. This single failure was central to quality, schedule, productivity and morale problems. The behavior that eventually drove improvements in all these areas was honest and timely discussions about delays.

# Ability or Motivation?

To remove barriers to change, you need to first understand whether the barriers relate to ability or motivation. Here are some examples of each:

# ABILITY BARRIERS PERSONAL: "I missed the training

for this interface. I don't know how to use it." SOCIAL: "I'm supposed to have a mentor to help me, but she's not in

mentor to help me, but she's not in today." STRUCTURAL: "Every time I call up this interface, my Elbonian soft-

ware crashes."
MOTIVATION BARRIERS

PERSONAL: "I don't like using this new interface. It's just uply."

SOCIAL: "I'd like to use it, but my boss told me to stick with the old interface for now."

STRUCTURAL: "I'd like to use it, and my boss is encouraging me.

but my pay is based on speed, and this new interface is slower."

- DAVID MAXFIELD

Validate these behaviors by setting short-term goals within a low-risk environment. Don't assume you've found the right behaviors to focus on until you've conducted a mini-study. Create a small pilot study in which you can watch the effect of new behaviors on results. When you're sure about the behaviors, create a large-scale influence stratesy.

## USE PERSONAL AND VICARIOUS EXPERI-ENCE TO CHANGE THOUGHTS AND AC-

TIONS. Changing behavior requires changing minds. People base their actions on two critical questions: "Can I do lit?" and "Will lis be worth it?" Unless the answers are affirmative, you won't change much behavior. The vast majority of attempts to influence these answers ray on presentations of data, carefully reasoned argument and the state of the control of the

Personal experience is the gold standard for changing beliefs. Forget about arguments. Launch a pible test, take people on a field trip, or otherwise immerse users in a safe version of the experience. As one IT manager put it, "I don't even try to persuade them. I put our virtualization software onto their desktops and have them use it. A week later, they've convinced themselves."

It's far more convincing to show than it is to tell. When personal experience int't possible, use vicarious experience. Give users a demonstration, have them hare their experiences, or take them to a location where they can see your solution in action. Vicarious experience convincing because people see and hear the results for themselves, taking "trust me" out of the equation.

## MARSHALL MULTIPLE SOURCES OF

INFLUENCE TO MAKE CHANGE INEVITABLE.
When you're trying to influence persistent and resistant behaviors, don't ask,
"What's the least I can do to influence
change?" Instead ask, "What is the
most I can do to make absolutely sure
people will change?"

Identify whether the barriers involve ability or motivation. Remember, the behavior will change only when the "Can IP" and "Will it be worth it?" questions are answered affirmatively. Attempting to motivate a person who feels unable to change will only create frustration—for both of you. Likewise, working to light a fire under an unmotivated person is a fool's game.

unmotivated person is a tools game.

The key to this diagnosis is not looking for the one crucial barrier, even though there may be one that stands out. The key is to address every single barrier to guarantee success.

Using these influence tools, you can solve any problem that can be affected through improved behavior — your own behavior or the behavior of others — from the simplest irritations to the most persistent, resistant and profound problems you can imagine.

Maxheld is the co-author of Influencer: The Power to Change Anything (Mc-Graw-Hill, 2007). He is also the lead researcher at VitalSmarts, a corpo-



also the lead researcher at VitalSmarts, a corporate training and organizational performance consulting firm. Trusting the wrong LTO tape can come back to bite you.







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# **Virtualization**

# These four steps will help you get it right the first time. **By Robert L. Scheier**

VIRTUALIZATION — creating logical pools of IT resources not linked to physical devices — can reduce spending on new server and storage hardware, increase application uptime and simplify IT management. But your organization will get those benefits only if you follow some key steps.

#### UNDERSTAND VIRTUALIZATION

Some users purchase storage virtualization for only one purpose, without realizing the other some pose, without realizing the other some pose, without realizing the other metalization in Boulder, Colo. For example, he says, "it does not necessaries to be seen to see the passe of virtualization technology just to the based virtualization technology just to the based virtualization technology just to the corner more worthwhile when he becomes more worthwhile when he laced for purposes such as capacity management, load-balancing and information

life-cycle management, which moves data to less-expensive storage devices as the data becomes less valuable.

as Thomas Williamson learned that lesson the hard way. The manager of network operations at the Calvary Chaple in Fort Lauderdale, Fla. purchased VMware ESX to virtualize as severes, but he want aware that to could also virtualize the storage for hose virtual machines. It was only after purchasing a 4TB Dell/EMC CAUGO SAN BOARD TO AND TO CAUGO SAN BOARD TO COPPE AND TO COPPE AND

Williamson says SANmelody allows him to use regular servers linked to low-cost disk arrays to expand his storage capacity and use features such as snapshotting for much less money than it would cost with the Dell/EMC SAN. "The biggest mistake for us was our lack of research" he says. "When

we found out about DataCore, we [thought], 'Why didn't we wait the extra month; why didn't we research the thought of storage virtualization?'

thought of storage virtualization? Users seeking to virtualize their like-based storage should first consider for the consideration of the consideration of the consideration of the consideration Stillwater, Minn-based industry analysis and consulting firm. It fle goal is to simply reduce the number of networkstanched storage (NAS) appliances in use, consolidating them into lever, larger devices might be easier and less appliance that virtualization, he says. But It the goal to see the part of the consideration of the part of the consideration of the part of the consideration of the part of part of

CREATE A PROCESS
Realizing cost savings — or

Realizing cost savings — or even just keeping the virtual environment stable and secure — requires consistent processes for creating, configuring, maintaining and eventually climinating virtual servers when they are no longer needed.

Since you don't need to purchase new hardware to set up a new virtual machine (VAO), there's often no formal process for approving virtualization projects, says Stefan Paychere, founder and chief technology officer at Dunes Technologies inc. a virtualization management software vendor in Stamford, Conn. That lack of oversight can result in a "sprawl" of virtual servers that is as hard to manage as physical

server sprawl.

Botched changes to a physical host server are especially dangerous, because they can affect the availability to the control of the control o

Creating sound processes governing the VM life cycle requires an in-depth understanding of how the physical servers and their computing resources

Continued on page 56

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1. Boil, bubble, toil, and trouble Mrthes are big with brews Why not make one of your own to use against them? Sure, eye of newt is tough to find at the local market, but it s probably available online



Melt the Witch.
 You've seen the film so you know the big ending. A bucket of water, poured directly Witchward, causes her to steam, melt, and dissolve into





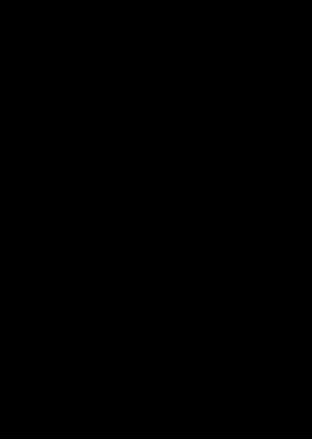


4. Insult the Witch.



5. Steal her broom

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 Boil, bubble, toil, and trouble Witches are big with brews. Why not make one of your own to use against them? Sure, eye of newt is tough to find at the local market, but it's probably available online.

# 2. Melt the Witch

You've seen the film so you know the big ending. A bucket of water, poured directly Witchward, causes her to steam, melt, and dissolve into a puddle on the floor. Lure her to the watercooler and you're done.





\*\* Insuft the Witch. Witches, despite their warry exteriors, are quite sensitive So asking "Hey, Witch—is that your note or a green banama" can be devastating.



5. Steal her broom. Nearly every Witch has a magic broom, and if you can get it away from her she's basically grounded. And, with a little practice, you can cut your commute in half.

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# Managing Expectations Careful research upfront will help

u sat reasonable expectation Here are the most common outes of virtualization, in the order that they are achieved, according to analyst Andi Mann at Enterprise agement Associates:

1. Enabling disaster recovery

2. increasing flexibility and agility 3. Improving server utilization

4. Reducing downtime 5. Lowering administration

Continued from page 54 are divided among VMs and how the VMs map to the service-level agreements about the performance and uptime of applications, Vaishnavi says.

Consistent monitoring of the VMs is also necessary to ensure that they've been properly configured to comply with corporate, industry or government standards.

MEASURE AND TEST Predicting the hardware required for each VM can be tricky. To do that accurately, Paychere advises taking these

- five metrics into account: ■ The number of CPU cycles
- The amount of disk space ■ The level of disk I/O
- The amount of memory ■ The network bandwidth each VM will require

Some tools, such as VMware Inc.'s Distributed Resource Scheduler, can dynamically reallocate and balance VMs among physical machines as application needs change, he says. Premigration tools from several vendors can also help you calculate the best

ratio of virtual to physical servers. Schulz recommends testing VM configurations under actual performance conditions, rather than extrapolating from tests with only a few serv-

ers or a small amount of data. He also suggests employing virtualization first for low-risk activities, such as testing and development, then moving on to new applications developed and tested in virtual environments, and only then using it for older applications.

#### TAKE A TOTAL SYSTEMS VIEW A physical server running multiple virtual machines

generates far more network traffic than one running a single application. But IT decision-makers often don't consider the impact of virtualization on other parts of the IT infrastructure, says Jay Kramer, vice president of worldwide marketing at iStor Networks Inc., a storage vendor

in Irvine, Calif. Calvary Chapel's Williamson says he underestimated how server virtualization would boost his storage needs. "When you're working with server virtualization, you can throw up a server in a second and use 15GB to 20GB of storage without even realizing it," he

cave Analyst Andi Mann at Enterprise Management Associates says companies can reduce their appetite for storage by "tightly restricting" the creation of VMs through tools that perform automated discovery, inventory and

configuration management. Roosting network bandwidth to handle this increased traffic to and from VMs might require implementing multipathing, path fail-over and loadbalancing on the network in case one

network component becomes overloaded or fails. Maintaining proper security, uptime or redundancy might require creating virtual LANs to keep sensitive traffic

from unauthorized eyes or on the fastest network links, says Kramer. All in all, virtualization "should not be adding any more complexity, should not be adding any more management work for you," says StorageIO's Schulz. "It should not be introducing any new bottlenecks: it should not be introduc-

ing any new instabilities." By thinking through virtualization beforehand, he says, you can ensure that "you are using the right tool for the right problem at hand." Schoint is a freelance writer based in Boylston, Mass. He can be reached at hoh@scheierassociates.com.

# **Sweat the Details**

Once you finalize the grand design of your virtualization ject, beware of details that can unexpectedly increase costs or complexity, says Eric Foote, chief technical architect at Troy, Mich.based CareTech Solutions Inc., which provides IT and informat

management services to health care providers. Here are things to consider: ■ Different software companies have different licensing policies for

virtual machines, which can result in nificant unexpected licensing costs III Migrating applications and servers from physical to virtual machines can



ndors claim. For example, the operating system or application may need updates efore being converted to iver and hardware incomnatibilities may neces

W You will need new skills in the virtualized world, such as an understanding of virtualized switches, network traffic in virtualized environ network interface cards and LANs, and storage with multiple hosts sharing common volumes

- ROBERT L. SCHEIER

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# **If Ever We Step** Into the Breach

A federal regulation has a snowball effect. requiring the agency to change several procedures and contracts.

fessionals don't work in a vacuum. Nor do we simply track down and implement security best practices. Sometimes, we are dictated to. And when you work in a state agency that has to follow the mandates of the federal Centers for Medicare & Medicaid Services (CMS), you need to pay close attention and jump when you're told to iump. The CMS is the final authority for my agency in all matters pertaining to the security of confidential health information. When it tells us we "should" do something, it means we must do it

You must, because if you don't, your state could not only lose federal funding for Medicaid programs but also be saddled with severe penalties. But I have no qualms about compliance matters. I like to be ahead of the game, not lagging behind and living in fear.

A year ago, the CMS sent out a letter to all state Medicaid directors reminding them that they have an "ohligation to ahide by all Federal and

State laws regarding the security and privacy of medical data and records. and of all protected health information.

That isn't a reminder I needed, but the letter also drew attention to federal legislation stating that states "should" perform an internal or external risk

assessment. The letter arrived at a good point in our fiscal cycle. We were able to get money budgeted so we could contract with an outside assessment firm. Since then, we have also performed a security selfassessment, following the guidelines from NIST Special Publication 800-26, and the legislative counsel's auditors and our agency's outside attorneys have also completed audits of us.

We sailed through them all without problems, hut I should know better than to expect to relax. And sure enough, in August,

III I have no qualms about compliance. I like to be ahead of the game, not lagging behind and living in fear.

we received a "clarification letter" from the CMS Clarification was certainly needed, since I had completely missed the import of a statement that all security breaches "should" be immediately reported to the director of the Divi-

sion of State Systems at the Our practice is to report security breaches to our state's Office of Informa-

tion Security, and I had assumed that we could continue to do so, provided that the state OIS reported the hreach to the CMS. Not so. The buck stops here.

# SILVER LINING

This certainly wasn't a case of overlooking had news I didn't want to deal with The truth is that I'd rather not report hreaches to the OIS, since that office has been largely ineffec tive. Its hudget is inadequate, it's poorly staffed, and it has been through three chief information security officers in the past three years. I'd just as soon report directly to the CMS, and maybe cc: the OIS

Some states had questioned the legal hasis for the CMS to require us

# Trouble **Ticket**

AT ISSUE: Federal egulators require no-

**ACTION PLAN: Chang** rocedures and contracts to make sure the agency is in compliance

to report hreaches to its director of the Division of State Systems. The deal is this: If anything occurs that materially impairs a state's ability to meet the objective of its federal grants and matches, the CMS must be notified. A glance at the federal legislation that the CMS referred to convinced me that it's right.

But this interpretation means we have to make a lot of changes. We must report hreaches to the CMS. alter the contract with our fiscal agent, change the wording of our businessassociate agreements and review all contracts to ensure that they include language reflecting the requirement to report hreaches to the CMS and outlining what the CMS

calls "specific remedies." We had to ask the attorney general's office to define what cific remedies"

my guess is that it means figuring out how to pass the expense to the vendors should we face any penalties because of their actions I

these "spe-

should be, but

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscikelly@yahoo.com.

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PROTECTION AT THE SPEED OF BUSINESS

# ITIL Moves Upscale

HE Information Technology Infrastructure Library was developed by the U.K. Office of Government Commerce to describe a standard set of IT management processes. ITIL originally focused on the processes required to operate IT infrastructure effectively,

such as incident management and change control. Version 3 of ITIL (commonly referred to as ITIL v3), which was released

this summer, has an expanded scope. With v3, ITII. now includes definitions for the services IT provides (PC installation, software application training, employee mailbox creation and so on) as well definitions for the associated delivery processes.

Rodrigo Flores, founder of service-catalog software company NewScale Inc., uses a restaurant analogy to describe the expanded scope. In this analogy, ITII, v2 functioned as an operating manual for the kitchen staff of a school cafeteria. With a captive student audience, the cafeteria staff had relatively little concern for customer service. ITII, v3 functions as the business plan for an upscale restaurant. The restaurant's management team wants the restaurant to be profitable; consumers are looking for quality food, excellent service and fair prices (menu choices are provided in the ITIL service catalog); and the restaurant staff is focused on meeting customers'

expectations. ITIL v3 provides definitions and processes to support all these sets of objectives. With this expanded

With this expanded scope, ITIL v3 will become much more important and useful to IT organizations. Here's why:

V3 facilitates business trade-offs. A new v3 book from the ITIL Lifecycle.

Core Library, Service Strategy (TSO, 2007), describes a framework for making effective business tradeoffs as well as trade-offs between cost and levels of service. The section on service portfolio manage ment offers approaches for determining which services should be funded and which should be retired. This process facilitates decision-making within the IT organization and at the executive level.

V3 provides greater detail. Earlier versions described

become much more useful to IT organizations.

general characteristics of recommended IT processes. ITIL v3 provides expanded process definitions and also recommends specific implementation steps for most IT processes. In addition, v3 specifies the roles required to support IT processes, such as business relationship manager, service owner, product manager and service catalog manager. As a result, v3 requires less customization and is easier for organizations to implement. V3 andresses multiple

audiences. Previous ITIL
versions were written for
IT technical staff. ITIL
v3 addresses the needs of
these additional groups:

■ Business executives, known as "customers" in the ITIL vernacular. V3 addresses concerns that senior business executives might have about tasks such as allocating resources, making business trade-

offs and measuring results.

Consumers of IT services. ITIL's new service catalog provides a menu of services for IT users.



Menu items can be as simple as password resets or as complex as modifications to major systems.

■ Outsourcers. They are leveraging the service catalog to standardize their offerings and pricing and to provide consistent definitions for communicating with their clients.

with their clients.

Standards bodies. V3
lays the groundwork for industry operating standards. IT service management is relatively young and does not yet have widely accepted standards (such as GAAP for finance). ITIL v3 represents

astep toward them.

Users of other frameworks. ITIL v3 provides linkages to Six Sigma.
Cobit and so on. This ability to integrate with other frameworks enables IT or ganizations to adopt ITIL without compromising previous investments in vestments in

different models. V3 provides standard definitions for IT services and the processes that manage them. Standardization helps organizations reduce the delivery costs of IT services and provide customers with consistent definitions and pricing. With wider adoption, ITIL v3 will provide a solid foundation for standards across the IT industry. **Bart Porkins** is managing partner at Louisville, Ky.based Leverage Partners Inc., which helps organizations invest well in IT. Con-

tact him at BartPerkins@

LeveragePartners.com.

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# Career Watch

# SIN TAXES IN THE WORKPLACE

# Those extra pounds could cost you.

AMONG THE FIRST COMPANIES to take advantage of new Health Insurance Portability and Accountability Act rules that went into effect July 1 is Clarian Health Partners Inc. in Indianancies, which will start charoing employees more

in Indiamajolis, which will start charging snapleyors more for their habit humanume in 2000 of they let health risks such as tobacco sane, obesity or high cholestered go unchecked. Sieven Wantz, senior vice president for administration and human resources at Clarian, says in the July 22 issue of Workforce Management that despite for years of welfesses institutes, Clarian's annual health benefit costs continued to climb. The company hopes that charging more will got these costs

company hopes that charging more will put those costs in front of employees and motivate them to institute behavioral changes. You can expect others to take this appraach. In Provouverhouser-Dooper' May 1 "Management Barometer" survey, 62% of the 193 top executives whe responded said that their companies should start making employees who exhibit unhealthy behaviors pay a larger share of their health benefit costs. That's up from 48% who expressed such a view in Part's 2005 survey.

# Who's Got Their Back?

When leaders were asked to name the most important sources of help and support through job transitions, U.S. leaders overwhelmingly chose their boss and their colleagues, while leaders outside the U.S. chose family and external advisers.

	- HOW RANGED
44.4%	21.7%
40,54s	23.9%
21.8%	34.8%
6%	27.5
17.7%	11%
8.2%	386
	43.5% 21.8% 6%

# m ask a premier 100 it leader Gregory S. Smith



TITLE: CIO ORGANIZATION: World Wildlife Fund

Smith is this month's quest Premier 100 if Leader, answering readers questions about training and certification. If you have a dues ton you'd like to pase to one of our Premier 100 IT Leaders, send if to askaleader@computerworld.com and watch for this column each month.

What are the prospects for a 31-year-old graduating with a bachelor's in software engineering? I am currently

working in a help desk support position, I think they are good, but you need to market yourself in a slightly different way, since you are competing with younger. grads. According to a recent report by a leading IT advisory firm, software development and custom application work are in the money. Companies are spending IT dollars on software development, mainly in one of two platforms/languages: Java/J2EE and .Net. Depending on your expertise, you need to target firms that do lots of software development using the tools

to camouflage that you are late to the game. Leverage it and do it in an honest way. As an IT professional for 22 years and most recently as a CIO, I think honesty, hard work and attitude matter the most. If you are motivated to do the best that you can and a prospective employer senses that, it doesn't matter when you got your degree.

In interviews, don't try

you are best with.

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Pd also look into IT
placement firms. IT shops
all around the world use
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evaluate candidates for

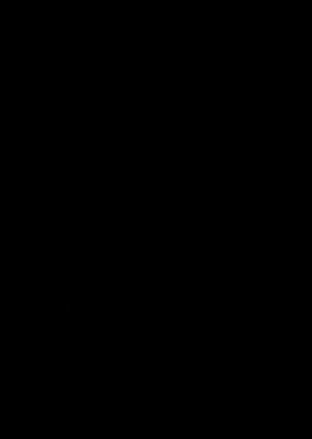
full-time positions. Oh, yeah, in keeping with my advice to other IT professionals on their way up the ladder — never give up!

I want to be a business/technology leader. I am considering a master's degree, but I'm uncertain whether I should go for an MBA or an MIS. I already have a background in business, with a bachelor's in business IT. My answer is right out of my book Straight to the Top (Wiley, 2006). You need to decide if you want to be a business or an IT leader as there's a difference in the background required. While today's CIOs are also business leaders and many have MBAs on top of undergraduate technical degrees, they are IT leaders first, and most of them have

pure IT technical background, it may be easier for you to rise up the ranks with an MBA than an MIS degree and focus more on a business leadership role than that of the CIO or CTO. Some of the best CIOs I know have hardcore technology backgrounds with an MBA. You've missed that to date. Thus, go for the more general MBA, which will give you a bit more flexibility to diversify at the top.

technical backgrounds.

Since you don't have a



# Career Watch

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Boss	44.4%	21.7%
Colleagues/peers	43.9%	23.3%
Family and friends	21.8%	34.8%
External advisers	6%	27.9%
Internal mentors/coaches	17.7%	1100
Human resources	8.2%	1.5%

# m ask a premier 100 it leader Gregory S. Smith



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# WHEN INFORMATION AVAILABILITY MATTERS



# Shark Tank TRUE TALES OF IT LIFE AS TOLD TO SHARKY

Oh, They're Focused Now, All Right

New corporate CIO sends a memo around the divisional IT group. "It said the development and support group was being reviewed for possible offshore outsourcing," says a pilot fish there. "The process was intended to be 'open,' and employees were urged to remain focused." Four weeks later, one of the IT staffers notices a managers' meeting scheduled on a shared calendar. Topic of the meeting: "Managing offshore resources." Result: "Résumépolishing is now in overdrive," fish says. "The previous peried of uncertainty mentioned in CIO's e-mail has been replaced by widespread cer-

tainty that offshore outsourcing isn't being 'considered' — it's the plan."

Just Catching Up User calls pilot fish to com plain that while she's accessing her e-mail via the Web, she's getting prompted with a meeting reminder every five minutes for the same meeting. "I investigated," says fish, "only to find that the department manager sent out a meeting request with a two-week recurrence. Unfortunately, the manager made the effective date 2004, not 2007, so the user was clicking through 69 reminders - one every five minutes - of meetings that never took Not That Smart

Manager complains that his department's printer isn't working, so pilot fish checks it out - and finds nothing wrong. "Everyone else in the department can print to it, and there are no jobs waiting in the job eue," says puzzled fish. "I ask him to print the report again. As I watch, he selects the printer in his office. I ask him why he's selecting that if he wants it to print on the department printer. His answer: The printer in my office is out of ink, so it should print on the other printer.' He had a hard time understanding that his PC isn't smart enough to automatically go find the printer

that has ink."

Doin' That Thing

It's the early 1990s, and this pilot fish working at a local school system knows his boss has a vision problem — and is too stubborn to admit it. "While reading the manual for his printer, I discovered

that if you pushed two command buttons while burning the machine on, it would be the ouble-high floothed-wride text "says fash." I made the neistable of showing him the trick. For the next several years, despite my retraining him regularly on how to do it, several times a week hi'd page me to come to his ofto and "nash that printer do that thing." I figured out that neadly had the present of the regular printouts in years.

■ Sharky's happy to take a squint at your true tale of IT life. Send it to me at sharky@ computerworld.com. You'll get a sharp Shark shirt if I use it.

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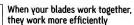
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# III FRANKLY SPEAKING

# Frank Hayes

# Kids, Gadgets & IT

OW OFTEN do you hear about a program promoting IT careers to young people that's so popular that kids who arent part of the program are actually trying to sneak in?

That's what the Society for Information Management has going in Memphis. At SIM's annual SIMposium conference

last week, the organization talked about how its Memphis chapter has partnered with the local public library to run a set of "technology camps" where 12-to-15-year-olds get to play with bright, shiny gadgets — and met. IT people who talk to them about how the technology is used in businesses.

For example, that can mean using digital cameras to create webcasts, or explaining the total can be used in hospitals. SIM's Teen Tech Camp

sessions have a limited enrollment — 12 to 18 attendess — and the kids have to write an essay and be recommended by a teacher before they're accepted. The result of that selectivity? Other kids try to sneak in. Now that's an attitude we want to see when it comes to IT careers.

It's a great idea, one that SIM hopes to spread to dozens of other cities.

But it may give you pause. After all ... gadgets? Is that really what we want to tell these kids that corporate IT is about? Actually, yes. And not just because those gadgets inspire a passion we sorely need in the next generation of IT people. That passion matters.

We all know there aren't any "safe" careers in IT, not anymore. The boring, workaday IT jobs are fodder for outsourcing. And bored IT people don't have a future, because they're not interested enough in the technology to search constantly for how it can give business users a competitive edge. Which is

what a corporate IT shop is supposed to be doing. These kids aren't bored. They're interested. They're curious. They've grown up steeped in tech-

nology, surrounded by gadgetry. Telling them that they can make a career out ar

If in the next generation of IT, a big part of our job will be helping users get competitive advantage from gadgets. of looking for new ways to use these things, not as toys but as business tools — that's certain to pull in the kind of engaged, motivated young people we

want for IT.

But there's more to it
than that. Gadgets really
are the future of IT's biggest value to the business.

Think about it. More and more of the technology IT has to support and manage is the gadgetry users bring in to work. And users don't just drag in the smart phones, handheld Web browsers, cameras and other gizmos for fun. They've found innovative

uses for them, ways to leverage that technology to do their jobs better. For us, that's a pain. These gadgets are hard to support, hard to secure and really hard for us to

They also happen to be the tech that provides users with real competitive advantage. Sure, the IT shop's

control

technology is important too. The code we write, the wiring we pull, the



firewalls we manage and the data centers we run — they're all critical to the business.

But they're infrastructure. And they're pretty standard stuff. Our competitors have bought or built the same things. They don't give us an advantage. They just let us stay in the game.

The real advantage comes from the things our competitors don't have. And one of them is the edge users can get by using gadgets cleverly.

gaugets cleverly.

In the next generation
of IT, a big part of our job
will be to help users get
that short-term competitive advantage from those
gadgets.

gadgets. Sure, the gadgets will be obsoler in a year or two. So will the advantage they give our users over their competition. Putting those gadgets to innovative, productive business user fast will be critical—and that will require all the curiosity, engagement and passion we can get from the next generation of IT.

people.

Which brings us back
to SIM's tech camps. No,
gadget tech isn't all there is
to the future of IT.

But if it can keep kids trying to get into IT instead of running away, it's a pretty good place to start.

Frank Hayes is Computerworld's senior news columnist. Contact him at frank\_hayes@ computerworld.com.

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# \_INFRASTRUCTURE LOG

\_DAY 75: These cobles ore everywhere!! Connecting underutilized servers to more underutilized servers. Our energy usage is out of control!!

\_DAY 77: I found o way out of this mess: the superefficient IBM BladeCenter. It helps us manage power and cooling usage with intelligent Cool Slue" technology. And with its new Quad-care Intel "Xean" processor, we won't have to socrifice perfarmance for efficiency. So out with cables, in with blodes.

\_DMY 79: Gil's stuck under the ball. Tried calling his wife.
Turns out the photo of his family came with the frame.





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